AMENDMENTS TO THE CLAIMS

1. (Currently amended) An audio encoder including dividing means for dividing an input signal into a plurality of frequency bands and outputting a plurality of sub-band signals, and performing compression-encoding for the individual sub-band signals outputted from said dividing means, wherein said audio encoder further comprises bit-allocating means,

said bit-allocating means performing weighting in conformity to an equal-loudness curve that connects points representing pressure values of sounds having the same auditory loudness level for each frequency of the individual sub-band signals, and performing bit allocation to equalize a weighted quantization error in the individual sub-band signals, wherein the bit allocation is performed using a weighting table.

2. (Currently amended) An audio encoder according to claim 1, wherein

said bit-allocating means comprises a memory unit, and

said memory unit stores [[a]] the weighting table, the weighting table specifying weighting coefficients conforming to said equal-loudness curve for the individual sub-band signals.

3. (Currently amended) An audio encoder according to claim 2, wherein

said memory unit further stores [[a]] the weighting table specifying weighting coefficients corresponding to encoding bit rates, and

said bit-allocating means performs bit allocation to equalize a weighted quantization error corresponding to the encoding bit rate in the individual sub-band signals.

4. (Previously presented) An audio encoder according to claim 3, wherein

said memory unit stores a plurality of weighting tables corresponding to the encoding bit rates, and

said bit-allocating means selectively uses an appropriate one of said plurality of weighting tables.

5. (Previously presented) An audio encoder according to one of claims 1 to 4, wherein an audio-encoding method uses a psychoacoustic analysis incorporating the consideration of auditory-sense characteristics, such as limitations of human auditory capability and masking effects.

6. (Currently amended) An audio encoder comprising:

a sub-band dividing unit for dividing an input signal into a plurality of frequency bands and outputting a plurality of divided sub-band signals;

a scaling unit for calculating scaling factors for the individual sub-band signals to uniformly adjust dynamic ranges thereof, said scaling factors representing a magnification from a reference value;

an auditory-sense-analysis bit allocating unit for performing weighting conforming to an equal-loudness curve for the individual sub-band signals and then calculating the amount of bit allocation to equalize a weighted quantization error in the individual sub-band signals, wherein the bit allocation is performed using a weighting table;

a quantization unit for performing quantization calculations for the individual sub-band signals to which bits were allocated; and

a bitstream generating unit connected to said quantization unit to generate and output a bitstream as encoded audio data together with header and auxiliary information.

7. (Currently amended) A psychoacoustic analyzing method to be used with an audio encoder that comprises a sub-band dividing means for dividing an input signal into a plurality of frequency bands and outputs a plurality of divided sub-band signals and that performs compression-encoding for the individual sub-band signals divided by said sub-band dividing means, comprising the steps of:

performing weighting in conformity to an equal-loudness curve that connects points representing pressure values of sounds having the same auditory loudness level for each frequency of the individual sub-band signals; and

performing bit allocation to equalize a weighted quantization error in the individual sub-band signals, wherein the bit allocation is performed using a weighting table.

8. (Currently amended) A psychoacoustic analyzing method according to claim 7, wherein said step of performing bit allocation performs bit allocation for the individual sub-band signals according to the contents of [[a]] the weighting table specifying weighting coefficients.

9. (Currently amended) A psychoacoustic analyzing method according to claim 8, wherein said step of performing bit allocation performs bit allocation according to the contents of [[a]] the weighting table, the weighting specifying weighting coefficients corresponding to encoding bit rates to equalize a weighted quantization error corresponding to the encoding bit rate in the individual sub-band signals.

10. (Previously presented) A psychoacoustic analyzing method according to claim 9, wherein a plurality of weighting tables corresponding to the encoding bit rates are provided, and an appropriate one of said plurality of weighting tables is selectively used.

11. (Previously presented) A psychoacoustic analyzing method according to one of claims 7 to 10, wherein said psychoacoustic analyzing method is applied to an audio-encoding method incorporating the consideration of human-auditory-sense characteristics.

12. (New) An audio encoder including dividing unit for dividing an input signal into a plurality of frequency bands and outputting a plurality of sub-band signals, and performing compression encoding for the individual sub-band signals outputted from said dividing-unit, wherein said audio encoder further comprises a bit-allocating unit,

said bit-allocating unit performing weighting in conformity to an equal-loudness curve that connects points representing pressure values of sounds having the same auditory loudness level for each frequency of the individual sub-band signals, and performing bit-allocation to allow a sub-band signal having a frequency band that is most humanly perceptible to be allocated with the largest number of bits.